

REMARKS

There are now pending in this application Claims 14-30, of which Claims 14, 16-18, 20-26, and 28-30 are independent.

In view of the above newly-presented claims and the following remarks, favorable reconsideration and allowance of the above application is respectfully sought.

There is accompanying this Amendment a Request for Permission to Amend the Drawings. This Request seeks to label Figure 7 as --Prior Art-- in accordance with the Examiner's requirements. Favorable consideration thereon is respectfully sought.

There are also being presented herein amendments to the specification. These are strictly formal matters to improve the form of the application. No new matter is being added.

In the outstanding Official Action, each of Claims 1-13 stood rejected as anticipated by or obvious in view of one or both of Hasegawa, et al. (U.S. Patent No. 5,871,587) or Moriya (U.S. Patent No. 5,578,129). Given the newly presented claims, Applicants respectfully submit that each of the newly presented claims is patentable over the applied art of record.

Applicants' invention as featured in Claims 14-17 incorporates a gas supply device arranged to (i) supply the first gas (e.g., helium gas) from the process chamber to the load-lock chamber when the substrate is transferred between the load-lock chamber and the first processing device (exposure device), and (ii) supply the second gas (e.g., clean gas) from the clean booth to the load-lock chamber when the substrate is transferred between the load-lock

chamber and the transfer device. Thus, as recited in Claims 14-17, the gas supply paths and gases are switched in accordance with how the substrate is transferred.

Hasegawa (U.S. Patent No. 5,871,587) features a semiconductor processing system including a first chamber (exposure chamber) 101 and a second chamber (coater/developer chamber) 130 which are connected by an in-line interface 133. Hasegawa provides that the helium gas is supplied from the first chamber 101 to the second chamber 130. However, Hasegawa fails to teach or suggest switching the gas supply paths and gases in accordance with how the substrate is transferred.

Moriya also fails to teach or suggest switching the gas supply paths and gases in accordance with how the substrate is transferred.

Accordingly, Applicants respectfully submit that newly presented Claims 14-17 are distinguishable over the applied prior art of record.

The invention as set forth in newly presented Claims 18-21 each incorporate the feature that the gas supply device is arranged to (i) supply the first gas to the load-lock chamber through a first gas supply path when the substrate is transferred between the load-lock chamber and the first processing device, and (ii) supply a dry gas from a dry gas supply source to the load-lock chamber through a dry gas supply path when the substrate is transferred between the load-lock chamber and the transfer device.

Applicants respectfully submit that neither of the applied references teach or suggest the above salient features of Claims 18-21. More specifically, each of Claims 18-21 is directed to an apparatus or system which switches the gas supply paths and gases in accordance

with how the substrate is transferred and such feature is neither taught nor suggested by the applied art of record.

Applicants' invention as featured in new independent Claims 22-25 is directed to one of a load-lock chamber, a substrate processing system, and an exposure processing system. Each claim recites, inter alia, that the gas supply mechanism is arranged to supply the second gas (e.g., clean gas) to the load-lock chamber in a state that the first gate valve (e.g., exposure device side) is closed and the second gate valve (e.g., clean booth side) is opened during the substrate being transferred (through the second gate valve) between the second atmosphere (e.g., clean booth) and the load-lock chamber (see page 16, lines 19-25). As a result of this combination of features, dust which may be generated upon transfer of a substrate or driving of the gate valve is prevented from contaminating the load-lock chamber.

Applicants have reviewed the applied art of record and respectfully submit that at least these above-recited salient features are neither taught nor suggested by the applied art of record.

Each of Claims 26-30 call for a straightening plate which is provided at an entire upper portion of an interior space within the load-lock chamber to supply a first gas and a second gas to the load lock chamber the gases being supplied through the gas supply pipe uniform flows. These salient features are disclosed at least at page 14, lines 24-25 and page 15, line 26 through page 16, line 3.

Applicants respectfully submit that the applied prior art of record fails to teach or suggest the invention as set forth now in independent Claims 26-30. It is acknowledged that

Moriya features in Figures 4A, 13 and 14, gas supplying heads 32, 90, and 95 provided at upper portions of interior spaces of the load-lock chambers. However, Moriya fails to teach or suggest that the gas supplying heads are provided at entire upper portions of interior spaces of the load-lock chambers and makes gases flows uniform.

For the foregoing reasons, Applicants respectfully submit that each of the newly-presented claims is patentable over the applied art of record. Favorable reconsideration and early passage to issue of the above application is respectfully sought.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should be directed to our address listed below.

Respectfully submitted,



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